



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,976	12/27/2001	Tsukasa Sako	862.C2478	1789

5514 7590 01/14/2004

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

KIKNADZE, IRAKLI

ART UNIT	PAPER NUMBER
----------	--------------

2882

DATE MAILED: 01/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/026,976

Applicant(s)

SAKO, TSUKASA

Examiner

Irakli Kiknadze

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 04252002. 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1, 2, 18-21, 28-37, 39, 40 and 42 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. The term "radiographing condition" in claims 1, 2, 18-21, 28-37, 39, 40 and 42 is a relative term, which renders the claim indefinite. The term " radiographing condition " is not defined by the claim, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term " radiographing condition " can be held to be indefinite because claim fails to state the function which is to be achieved and more than one effect can be implied from the specification or the relevant art.

4. The term " each item of the radiographing condition" in claims 18-21 and 33-36 is a relative term, which renders the claim indefinite. The term " each item of the radiographing condition " is not defined by the claim, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term " each item of the radiographing condition " can be held to be indefinite because claim fails to state the function which is to be achieved and more than one effect can be implied from the specification or the relevant art.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claims 1-3, 6, 7, 10, 11, 17- 21, 37 and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Taylor et al. (US Patent 6,614,873 B1).

With respect to claims 1, 18-21 and 37, Taylor teaches a radiographic apparatus and method for obtaining an X-ray image on the basis of examination request information received from an external apparatus (54), comprising: a storage unit (30) adapted to store at least one default radiographing condition; and a condition determination unit (30) for determining a radiographing condition on the basis of the received examination request information and a default radiographing condition, stored

in the storage unit (30), corresponding to the received examination request information, wherein the received examination request information is given preference to the default radiographing condition (column 2; line 28 – column 3; line 3).

With respect to claim 2, an image sensing unit (12) is adapted to capture an X-ray image on the basis of the determined radiographing condition; and a processor is adapted to process the X-ray image captured the image sensing unit on the basis of the determined radiographing condition (column 4; lines 43-60).

With respect to claim 3, the radiographing condition contains transfer destination information of an obtained X-ray image (column 5; lines 33-58).

With respect to claim 6, Taylor teaches the radiographing condition containing output format information (see claim 12).

With respect to claim 7, Taylor teaches the radiographing condition containing image rotation (see claim 8).

With respect to claims 10 and 11, Taylor teaches the radiographing condition containing character information to be inserted on an obtained X-ray image (see claims 10-12).

With respect to claim 17, Taylor teaches the radiographing condition containing information of an object to be radiographed and X-ray irradiation control (see claim1).

With respect to claim 40, Taylor teaches the computer readable program code means for obtaining a default radiographing condition from a storage unit based on the received examination request information; and for determining a radiographing condition on the basis of the received examination request information and the obtained default

radiographing condition, wherein the received examination request information is given preference to the default radiographing condition (column 3; lines 13-40).

7. Claims 22,23,25-30 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Takasawa (US Patent 6,501,827 B1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With respect to claims 22 and 23, Takasawa teaches (Fig.1) a control apparatus (17) connected to and outputting information to a plurality of radiographic apparatuses (14,16,100) on the basis of examination request information received from an external apparatus (110), comprising: an apparatus selection unit; and communication unit adapted to send information that pertains to the examination request information to the selected radiographic apparatus. The apparatus is communicatable with a plurality of input/output apparatuses, wherein processes based on inputs from the plurality of input/output apparatuses can be executed parallel to each other (column 6; line 46 – column 7; line 45).

With respect to claims 25-27, a setting unit sets a transmission destination of an X-ray image obtained by a radiographic apparatus. The examination request information contains information an object to be radiographed (column 8; line 5-55).

With respect to claims 28-30 and 32, a control apparatus (17) which is connectable to a radiographic apparatus, and outputs information to the radiographic apparatus (14,16,100) on the basis of examination request information received from an external apparatus (110), comprising: determining unit radiographing condition on the basis examination request information; and communication unit adapted to send the determined radiographing condition to the radiographic apparatus (column 6; line 46 – column 7; line 45).

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 38, 39, 41 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Fewster (US Patent 5,748,509).

With respect to claims 38 and 39, Fewster teaches control method for outputting information to one of a plurality of radiographic apparatuses on the basis of examination request information received from an external apparatus, comprising: selecting a radiographic apparatus to be used on the basis of the received examination request information/ or determining a radiographing condition on the basis of the received examination request information; and sending information that examination request pertains to the information to the selected radiographic apparatus (see claims 16-20).

With respect to claims 41 and 42, Fewster teaches a computer readable program code means for selecting a radiographic apparatus to be used on the basis of the received examination request information/ or determining a radiographing condition on the basis of the received examination request information; and sending information that pertains to the examination request information to the selected radiographic apparatus (see claims 16-20).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor (US Patent 6,614,873 B1) as applied to claim 1 above, and further in view of Neumann (US Patent 6,259,767 B1).

With respect to claim 4, Taylor teaches all that is claimed except disclosing that radiographin condition contains an X-ray irradiation aperture value. Neumann teaches an X-ray radiographing system, wherein the system sends information that concerns an X-ray irradiation aperture value to an X-ray generation apparatus (column 3; lines 1-8) in order to adjust an exposure field and provide better diagnostic images. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to

provide the radiographic apparatus of Taylor with the irradiation aperture adjustment of Neumann, in order to provide better diagnostic images.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor (US Patent 6,614,873 B1) as applied to claim 1 above, and further in view of Polkus (US Patent 6,422,749 B1).

With respect to claim 5, Taylor teaches all that is claimed except disclosing that radiographin condition contains an offset value information. Yonekawa teaches an X-ray radiographing system wherein an offset value associated with relative position relation between an X-ray tube (12) and an image sensor (20) for correcting or compensating for distortion of the shape of an X-ray field to improve the image data (see abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the radiographic apparatus of Taylor with the offset value corrections of Polkus, in order to provide better diagnostic images.

12. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor (US Patent 6,614,873 B1) as applied to claims 1 and 7 above, and further in view of Yonekawa (US Patent 6,504,897 B1).

With respect to claims 8 and 9, Taylor teaches all that is claimed except disclosing that radiographin condition contains density information. Yonekawa teaches an X-ray radiographing system wherein a content of a correcting process conducted by an image processing device includes correction for a density resolving power to improve an image resolution of the image data (claim 46). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the radiographic

apparatus of Taylor with the image corrections of Yonekawa, in order to provide better diagnostic images.

13. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor (US Patent 6,614,873 B1) as applied to claim 1 above, and further in view of Schneidermann et al. (US Patent 5,357,554).

With respect to claims 12-15, Taylor teaches all that is claimed except disclosing that the radiographing condition contains X-ray exposure time information with combination of a grid moving speed. Schneidermann shows an X-ray imaging system comprising an arrangement for determining a grid moving speed in accordance with the determined X-ray exposure time information calculated based on a statistic of actual X-ray exposure times received from an X-ray generation apparatus (column 5; lines 63-68 and column 6; lines 20-36) which allows to reduce the X-ray grid line artifacts and produce improved image. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the radiographic apparatus of Taylor with the teachings of Schneidermann, in order to provide better diagnostic images.

With respect to claim 16, Taylor teaches (Fig.1) an X-ray monitor (12) for detecting X-ray irradiation, wherein the X-ray exposure time is determined based on an output from the X-ray monitor (see claim 2). It would allow providing an interactive integrated radiographic imaging.

14. Claims 24 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasawa (US Patent 6,501,827 B1) as applied to claims 23 and 30 above, and further in view of Kumagai (US Patent 6,644,851 B1).

With respect to claims 24 and 31, Takasawa teaches all that is claimed except disclosing that the communication unit includes a wireless communication unit. Kumagai teaches (Fig. 3) a system, apparatus, method and computer program product for X-ray imaging comprising a wireless communication unit (column 9; lines 4-6) to allow communication via wireless channels. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the wireless communication unit of Kumagai with the apparatus of Takasawa, in order to allow the plurality of input/output apparatus communication via wireless channels.

15. Claims 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takasawa (US Patent 6,501,827 B1) as applied to claim 28 above, and further in view of Taylor et al. (US Patent 6,614,873 B1).

With respect to claims 33-36 Takasawa teaches all that is claimed except disclosing that setting the radiographing condition based on the received examination request has preference to a default radiographing condition. Taylor teaches an integrated system offering: complete radiation exposure control, image capture, storage and display combined with interactive operator guidance through the examination with the use of predetermined default settings. Further, Taylor shows a default X-ray image correction based on the received examination request (column 2; line 28 - column 3; line 3) to produce enhanced image. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the control apparatus of Takasawa with the default image corrections of Taylor, in order to provide enhanced diagnostic images.

Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irakli Kiknadze whose telephone number is (703) 305-6464. The examiner can normally be reached on M-F(8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (703) 308-4858. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Irakli kiknadze
January 6, 2004
IK



Craig E. Church
Primary Examiner